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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,769	07/01/2003	Dimitri Peter Zafiroglu	SWZ-007	2175
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THE H.T. THAN LAW GROUP WATERFRONT CENTER SUITE 560 1010 WISCONSIN AVENUE NW WASHINGTON, DC 20007			EXAMINER MATZEK, MATTHEW D	
			ART UNIT 1771	PAPER NUMBER

DATE MAILED: 09/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/611,769

Applicant(s)

ZAFIROGLU, DIMITRI PETER

Examiner

Matthew D. Matzek

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 and 56-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 and 56-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/8/05, 2/17/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

1. The Amendment and Remarks dated 6/8/2005 have been considered and entered into the Record. The documents submitted 6/8/2005 contain no new matter. The rejection of instant claim 26 has been withdrawn as the Specification (page 8, lines 21-30) provide support for the limitation "the bottom surface has been altered to increase the surface area in contact with the adhesive layer". The prior art rejections have been withdrawn in light of Applicant's arguments. The applied art failed to recite a fibrous face layer with a plurality of legs extending from said fibrous face layer. Claims 35-55 have been withdrawn; claims 1-34 remain active and new claims 56-59 are active.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 6-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The instant claims recite the term "ppi" with regards to needling density. Examiner has interpreted this mean punches per inch, but needling density is generally calculated in punches per square inch. Clarification and the full name of the units used for needling density are necessary in the amended claims.
3. Claim 22 recites the limitation "wherein the legs penetrate the backing layer" in the instant claim. There is insufficient antecedent basis for this limitation in the claim.

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4. Claim 30 is rejected as it is unclear as to how a needled nonwoven web may be formed via spunlacing.
5. Claim 32 is rejected as it is unclear to Examiner as to with what the upwardly facing loops increase the surface contact.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-5, 16-21, 23 and 56-57 are rejected under 35 U.S.C. 102(e) as being anticipated by Keith et al. (US 2003/0232171).

- a. Keith et al. teach a carpet comprising plurality of pile-forming yarns **20** projecting from a primary base **22** (fibrous face layer) with the plurality of yarns anchored in a layer of latex **24** (Abstract, Figure 1A and [0035-36]). The nonwoven backing layer is preferably from 0.05 to 0.12 inches (1.27 to 3.04 mm) and the fibrous face may have a basis weight of 4 oz/yd² (136 g/m²) ([0068] and Example 1). The applied reference is silent as to the manner in which the projecting yarns are punched through the nonwoven backing into the adhesive layer **24**, but is reasonable to presume that the fibers were needle-punched because yarns are necessarily punched through the nonwoven layer to yield the

applied article. The applied reference teaches the use of pile-forming yarns and as such the Examiner takes the position that this teaching encompasses reverse-pile knit fabric. Claim 18 is rejected as Figure 1B illustrates the use of cut pile yarns. Claim 19 is rejected as Example 1 uses a woven fibrous layer. Claim 21 is rejected as the applied article further comprises a backing layer (Figs. 9-11). Claim 23 is rejected because the applied article is capable of being embossed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keith et al. (US 2003/023171) as applied to claim 5 above, and further in view of Matsunaga et al. (US 2003/0152743). The disclosure of Keith et al. is silent as to the needling density of the fibers punched through the nonwoven fabric.

a. Matsunaga et al. teach a base cloth for tufted carpet and the tufted carpet using the same (Abstract). In the creation of the nonwoven base layer the preferred needle-punching density is generally 20 to 100 punches/cm² (129-645 punches/inch² [0042]).

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b. Since Keith et al. and Matsunaga et al. are from the same field of endeavor (i.e. needle-punched carpet comprising a nonwoven base fabric), would have been recognized in the pertinent art of Keith et al.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make the article of Keith et al. with the needling density of Matsunaga et al. motivated by the desire to create a sufficiently entangled article [0042, Matsunaga et al.]. Claim 7 is rejected as it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the article of Keith et al. with a needling density of at least 1000 punches per square inch, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

8. Claims 8-10 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keith et al. (US 2003/023171) as applied to claim 1 above, and further in view of Murphy et al. (US 5,763,040) and Murata et al. (US 4,576,840). The disclosure of Keith et al. is silent as to the use of stitch-bonding shrinkable yarns for use as a nonwoven backing.

a. Murphy et al. teach a carpet backing or base layer comprising a fibrous nonwoven substrate (Abstract). The underlay is prepared via conventional techniques such as needle-punching, stitch-bonding, spunlacing or knitting (col. 3, lines 41-51 and col. 8, line 47-col. 8, line 12).

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b. Murata et al. teach a pile fiber composition comprising shrinkable pile fibers in the creation of a woven or knitted pile fabric.

c. Since Keith et al., Murphy et al. and Murata et al. are from the same field of endeavor (i.e. fabrics comprising pile fibers), the purpose disclosed by Murphy et al. and Murata et al. would have been recognized in the pertinent art of Keith et al.

d. It would have obvious at the time the invention was made to a person having ordinary skill in the art to modify the article Keith et al. with a stitch-bonded or knitted carpet motivated by the use of conventional techniques within carpet making with the desire to create an article with outstanding appearance and feel (Murata et al. Abstract).

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Keith et al. (US 2003/023171) in view of Murphy et al. (US 5,763,040) and Murata et al. (US 4,576,840) as applied above to claim 10 and in further view of Gillyns et al. (US 5,283,097). The disclosures of the applied art are silent as to the loop frequency per inch of the protruding legs.

a. Gillyns et al. teach a process for the creation of a nonwoven polyolefin sheet for use as a primary carpet backing (col. 1, lines 9-15). The pile tufts that may be needled into the primary carpet backing a stitching density of between 4 and 7 stitches per cm (10-18 stitches per inch) resulting in an article with 10-18 loops per inch (col. 5, lines 45-50).

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b. Murphy et al. teach a carpet backing or base layer comprising a fibrous nonwoven substrate (Abstract). The underlay is prepared via conventional techniques such as needle-punching, stitch-bonding or knitting (col. 3, lines 41-51).

c. Murata et al. teach a pile fiber composition comprising shrinkable pile fibers in the creation of a woven or knitted pile fabric.

d. Since Keith et al., Murphy et al., Murata et al. and Gillyns et al. are from the same field of endeavor (i.e. carpet), the purpose disclosed by Gillyns et al. would have been recognized in the pertinent art of Keith et al.

d. It would have obvious at the time the invention was made to a person having ordinary skill in the art to modify the article Keith et al. with a stitch-bonded or knitted carpet face layer with undulating loops at 10-18 loops per inch motivated by the use of conventional techniques within carpet making with the desire to create an aesthetically and physically pleasing carpet.

10. Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keith et al. (US 2003/023171) as applied above to claim 1 in further view of Gillyns et al. (US 5,283,097). The disclosure of Keith et al. is silent as to use of pattern-bonding and the loop frequency per inch of the protruding legs.

a. Gillyns et al. teach a process for the creation of a nonwoven polyolefin sheet for use as a primary carpet backing (col. 1, lines 9-15). The pile tufts that may be needled into the primary carpet backing a stitching density of between 4 and 7 stitches per cm (10-18 stitches per inch) resulting in an article with 10-18

loops per inch (col. 5, lines 45-50). The web used as the primary backing of the applied invention is pattern-bonded (col. 8, lines 52-59).

b. Since Keith et al. and Gillyns et al. are from the same field of endeavor (i.e. carpet comprising a nonwoven backing), the purpose disclosed by Gillyns et al. would have been recognized in the pertinent art of Keith et al.

c. It would have obvious at the time the invention was made to a person having ordinary skill in the art to modify the article Keith et al. with a pattern-bonded carpet face layer with undulating loops at 10-18 loops per inch motivated by the use of conventional techniques within carpet making with the desire to create an aesthetically and physically pleasing carpet.

11. Claims 26-29, 31-32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keith et al. (US 2003/023171) in view of Ladeur et al. (EP 0547533, a machine translation will be used in this Office Action, a full-translation will be provided in subsequent Office Actions). Keith et al. is silent as to the altering of the bottom surface of the fibrous face layer.

a. Ladeur et al. teach a floor covering comprising a base fabric **1** and pile fibers **2** that make up a face layer with a plurality of legs dependent said face layer (Abstract and Figures). The bottom surface of the pile fibers that extend from the base fabric **2** have legs that increase the surface area in contact with the adhesive layer. The top surface of the plurality of fibers comprises downwardly facing fiber loops with free fiber ends that extend into the adhesive layer.

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b. Since Keith et al. and Ladeur et al. are from the same field of endeavor (i.e. carpets comprising pile layers with base fabrics), the purpose disclosed by Ladeur et al. would have been recognized in the pertinent art of Keith et al.

c. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the article of Keith et al. with fibers with legs motivated by the desire to provide more surface area for bonding.

d. Claim 27 is rejected as the reinforcement layer 18 (backing) is at least partially in the adhesive layer [0035].

e. The fibrous face layer preferably a plurality of yarns implanted in the adhesive layer, but is silent as to the depth unto which it is to be implanted.

Claim 28 is rejected as it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the article of Keith et al. with the adhesive layer extending into the fibrous layer at a distance from about $\frac{1}{4}$ to $\frac{3}{4}$ of the thickness between the top and bottom surfaces, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering an optimum or workable range involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

f. Claim 32 is rejected as the invention of Keith et al. comprises upwardly and downwardly facing loops (Figure 3A). It would have been obvious to combine the upwardly and downwardly facing loops of Keith et al. and the legged pile of Ladeur et al. to create an aesthetically pleasing article with the motivation

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of creating an article with increased adhesion between the yarns and adhesive layer due to the increased surface area available for bonding.

12. Claims 30 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keith et al. (US 2003/023171) in view of Ladeur et al. (EP 0547533) as applied to claim 26 above and in further view of Murphy et al. (US 5,763,040). Keith et al and Ladeur et al. are silent as to the use of a knit fabric as a backing layer for carpet.

a. Murphy et al. teach a carpet backing or base layer comprising a fibrous nonwoven substrate (Abstract). The underlay is prepared via conventional techniques such as needle-punching, stitch-bonding or knitting (col. 3, lines 41-51). The underlay may also be spunlaced nonwoven (col. 8, lines 5-12).

b. Since Keith et al., Ladeur et al. and Murphy et al. are from the same field of endeavor (i.e. carpet comprising a primary backing or face layer), the purpose disclosed by Murphy et al. would have been recognized in the pertinent art of Keith et al.

d. It would have obvious at the time the invention was made to a person having ordinary skill in the art to modify the article Keith et al. with a knitted or spunlaced fabric layer motivated by the use of conventional techniques within carpet making with the desire to create an aesthetically and physically pleasing carpet.

13. Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over Keith et al. (US 2003/023171) in view of Murphy et al. (US 5,763,040) and further in view of

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Zafiroglu (US 5,075,142). Keith et al. and Murphy et al. are silent as to the use of a knit fabric from textured yarns as a backing layer for carpet.

a. Zafiroglu teaches an improved thermoformable composite sheet comprising a stitchbonded nonwoven elastic fabric of materials that are used for the creation of carpet (Abstract). The use of textured yarns are provided for in the composite sheet.

b. Since Keith et al., Murphy et al. and Zafiroglu are from the same field of endeavor (i.e. composite fabrics for use in carpets), the purpose disclosed by Zafiroglu would have been recognized in the pertinent art of Keith et al.

c. It would have obvious at the time the invention was made to a person having ordinary skill in the art to modify the article Keith et al. with a knitted face layer made from textured yarns motivated by the desire to create and aesthetically carpet.

14. Claim 59 is rejected under 35 U.S.C. 103(a) as being unpatentable over Keith et al. (US 2003/023171) in view of Zafiroglu (US 5,075,142). Keith et al. is silent as to the use of a woven fabric from brushed yarns as a backing layer for carpet.

a. Zafiroglu teaches an improved thermoformable composite sheet comprising a stitchbonded nonwoven elastic fabric of materials that are used for the creation of carpet (Abstract). The use of textured yarns are provided for in the composite sheet. The Examiner takes the position that a brushed fabric is equivalent to the disclosed textured fabric.

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b. Since Keith et al. and Zafiroglu are from the same field of endeavor (i.e. composite fabrics for use in carpets), the purpose disclosed by Zafiroglu would have been recognized in the pertinent art of Keith et al.

c. It would have obvious at the time the invention was made to a person having ordinary skill in the art to modify the article Keith et al. with brushed yarns motivated by the desire to create and aesthetically carpet.

Double Patenting

15. Claims 1-34 and 56-59 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-22 and 38-62 of copending Application No. 10/611,470 in view of Keith et al. (US 2003/023171). Both applications recite a fibrous face layer with elevated and depressed areas with the depressed areas adhesively attached to the rest of the composite, however application 10/611,470 requires the fibrous outer layer comprise a fabric. Keith et al. teach a floor covering comprising a nonwoven primary base and a plurality of pile forming yarns projecting from one side. The incorporation of the pile forming yarns and the nonwoven primary base constitutes a fabric comprising a plurality of legs dependent from the fibrous face layer, or a pile fabric. Since both the applied application and Keith et al. are from the same field of endeavor (i.e. fabric facings/carpet), the purpose disclosed by Keith et al. would have been recognized in the pertinent art of the applied application. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the article of

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'769 with pile fabric of Keith et al. with the motivation of creating an article with the pile facing and the stability of the nonwoven fabric substrate.

This is a provisional obviousness-type double patenting rejection.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew D. Matzek whose telephone number is (571) 272-2423. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mdm


NORCA TORRES
PRIMARY EXAMINER